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Applying Active Learning Methods in Higher Education

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//Abstract

The 1st International Conference in Experiences in Active Learning in Higher Education was held on 27 October 2017 at the Faculty of Economics and Business of the University of Barcelona. It provided a forum for high-quality research in innovation in higher education focusing on active learning methodologies such as flipped classroom, team-based learning and problem-based learning.

//Keywords

Active learning; Flipped classroom; Case studies; Team-based learning; Higher education.

//Recommended reference

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//Títol

Aplicació de mètodes d'aprenentatge actiu en educació superior

//Resum

El 27 d'octubre de 2017 va tenir lloc a la Facultat d'Economia i Empresa de la Universitat de Barcelona la Primera Conferència Internacional d'Experiències en l'Aplicació de Mètodes d'Aprenentatge Actiu a l'Educació Superior. Va ser un fòrum per a la recerca d'alta qualitat en estratègies d'innovació a l'educació superior centrat en metodologies d'aprenentatge actiu, com la classe inversa, l'aprenentatge basat en equips o els experiments a l'aula.

//Paraules clau

Aprenentatge actiu; Classe inversa; Estudis de casos; Treball en equip; Educació superior.

//Título

Aplicar métodos de aprendizaje activo en educación superior

//Resumen

La Primera Conferencia Internacional de Experiencias en la Aplicación de Métodos de Aprendizaje Activo en Educación Superior se celebró el día 27 de octubre de 2017 en la Facultad de Economía y Empresa de la Universidad de Barcelona. Fue un fórum de investigación de alta calidad en estrategias de innovación en la educación superior centrado en metodologías de aprendizaje activo como el aula invertida, el aprendizaje basado en equipos, los experimentos en el aula, etc.

//Palabras clave

Aprendizaje activo; Aula invertida; Estudios de casos; Trabajo en equipo; Educación superior.

The constantly changing global environment and the rise of the culture of digitisation of life today pose challenges to everyone involved in higher education. While the main goal of universities still remains the development and enhancement of the students' individual potential in order for them to be better prepared for their future role in society, teaching and learning methods need to evolve to adapt to the new realities more adequately. Active learning tools, such as flipped classroom, collaborative and cooperative learning, peer instruction, or problem-based learning (PBL), are called to replace, at least partially, the traditional lecture-based method that still dominates higher education settings. The topic frequently generates divergence among teaching staff. Nevertheless, advocates of active learning show that these innovative instruction strategies are more effective in enhancing students' motivation, knowledge retention, transversal skills and overall academic achievement.

Motivation is essential to learning and personal development. That is why it is important to find stimulating environments that capture the students' attention as well as implementing teaching techniques to influence their motivation and abilities to learn without compromising academic rigour. In this sense, some factors have proven to be useful. For example, one way to engage students and teach them responsibility is to get them actively involved in the classroom. The classroom social environment and student-teacher interaction play a significant role in student motivation.

It was with these thoughts in mind that the University of Barcelona's Grup d'Innovació Docent en Tècniques d'Aprenentatge Actiu i Vivencial en Economia (Group for Teaching Innovation in Active and Experiential Learning Techniques in Economics, GIDTAAVE) organized the 1st International Conference in Experiences in Active Learning in Higher Education. Our interest in active learning methods arose some years ago as a result of a major common concern about the academic difficulties faced by repeat students in economic theory courses. To remedy these difficulties, we designed an instruction strategy based on a mix of active learning tools and implemented this in our teaching practices. In light of the very encouraging results regarding students' performance and motivation, we started to conduct more rigorous research in the area of active learning, sharing our findings in national and international scientific meetings, and publishing in academic journals. All this deepened our understanding of active learning and its usefulness in double demotivated teaching environments with students who are disengaged but who are not necessarily low performers, and with lecturers struggling to grab their attention. We benefited from sharing ideas and knowledge with other academics and we decided to take the lead in organising a scientific encounter to further encourage the exchange of experiences and to revitalise the discussions regarding the need to adapt higher education to our ever-changing social needs. The 1st International Conference in Experiences in Active Learning in Higher Education was held on 27 October 2017 at the Faculty of Economics and Business of the University of Barcelona. It provided a forum for high-quality research in innovation in higher education focusing on active learning methodologies such as flipped classroom, team-based learning and experiments. Participants from different Catalan universities and from several disciplines presented their work and had an opportunity to discuss their experiences with other colleagues. The keynote "Team for Learning ... or Learning for Teams" was delivered by Professor Piet Van den Bossche of the University of Antwerp (Faculty of Social Sciences) and Maastricht University (School of Business and Economics).

The sessions included flipped-classroom experiences, team work and problem-based learning, among other learning and evaluation experiences. The significant contributions in these fields were followed by fruitful discussions among participants.

In order to promote future research and discussion regarding the usefulness and applicability of active learning methods in higher education and to encourage lecturers to use them in their teaching practices to improve students learning outcomes, the REIRE journal is offering this special issue, which brings together some of the most relevant presentations from the Conference. All the selected papers followed the double-blind peer review procedure before being finally accepted for publication. This special issue includes five articles on different types of active learning methodologies. The first two papers present flipped-classroom experiences to teach undergraduate courses in microeconomic theory (Abío et al., 2018) and physical chemistry of materials (Arévalo, Gamallo, & Giménez, 2018), and are intended as works of reference on the implementation of such strategies in classroom practice. These are followed by two other papers that advocate the use of alternative instructional methods, such as those based on team-based learning (TBL), namely case studies (Bolívar-Ramos & Martínez-Salgueiro, 2018) and simulation games (Mach & Saldaña, 2018) in the teaching of undergraduate business courses. And lastly, the reader can find a work describing the use of a complex mix of innovative teaching strategies applied to a master's degree course on quantitative methods for sociological research (Pérez-Marín, Daza-Pérez, & Alcañiz-Zanón, 2018). Although the results vary in strength, all of the studies support the use of active learning methods in higher educational settings. Overall, the introduction of activity and cooperation into the classroom is shown to be effective for enhancing students' motivation and skills acquisition, as well as for promoting positive learning outcomes, such as academic achievement and attitudinal outcomes.

We hope you will benefit from the papers in this special issue on active learning in higher education and that you will find them inspiring and useful for your teaching.

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